

# Recovery Plan Action Status

**Plan Name:** Recovery Plan for the Rough Popcornflower (*Plagiobothrys hirtus*)

**Plan Status:** Final

**Plan Date:** 25-Sep-03

**Lead Agency:** USFWS

**Lead Office:** Oregon Fish And Wildlife Office

(2503)  
231-6179 )

Species	Action Priority #	Action #	Action Description	Action Status	Est. Initiation Date	Est. Completion Date	Responsible Parties	Work Type	Labor Type	Action Comments
rough popcornflower ( <i>Plagiobothrys hirtus</i> )	1	1.1.1	Evaluate the status of all existing populations.	Ongoing Current	FY 2005		Oregon Department of Agriculture, Oregon Department of Transportation, U.S. Fish and Wildlife Service, The Nature Conservancy	Research: Population Surveys	Species Expert	Previous report was finalized in 2008, another round of surveys may be conducted in 2012 or 2013, if necessary. A recently completed five-year review reported status of all known populations across species range.
rough popcornflower ( <i>Plagiobothrys hirtus</i> )	2	1.1.2	Conduct surveys to search for new populations.	Ongoing Current	FY 2005		Oregon Department of Agriculture, Oregon Department of Transportation, City of Sutherlin, Oregon, U.S. Fish and Wildlife Service	Research: Population Surveys	Graduate Student, Internal Field Assistance, Volunteer	Private land plant surveys are rare and only occur when tied to US Army Corps of Engineers wetland permitting projects. Most private lands have not been surveyed for rough popcornflower. Several populations thought to have been extirpated were discovered or re-discovered in FY 2009 in Sutherlin and at the North Bank Habitat Management Area. An old occurrence record on private land(Horsepasture 2)was visited in 2010 and was found to have a significant <i>Plagiobothrys hirtus</i> population.

Species	Action Priority #	Action #	Action Description	Action Status	Est. Initiation Date	Est. Completion Date	Responsible Parties	Work Type	Labor Type	Action Comments
rough popcornflower (Plagiobothrys hirtus)	1	1.1.3	Select and delineate reserve sites.	Ongoing Current	FY 2000 - FY 2004		Oregon Department of Agriculture, City of Sutherlin, Oregon, U.S. Bureau of Land Management, U.S. Fish and Wildlife Service, The Nature Conservancy	Acquisition: General	Contract	Six rough popcornflower sites that contain at least 5,000 plants, are sufficiently stable, and under protective status qualify for "reserve" status as of FY 2011. These were documented in the 2010 5-year review. By 2012 or 2013 surveys, a new reserve area may be established.
rough popcornflower (Plagiobothrys hirtus)	1	1.1.4	Protect habitat to be included in reserves	Ongoing Current	FY 2000 - FY 2004		Oregon Department of Agriculture, Oregon Department of Transportation, Oregon Division of State Lands, City of Sutherlin, Oregon, U.S. Bureau of Land Management, U.S. Fish and Wildlife Service, U.S. Environmental Protection Agency, The Nature Conservancy, U.S. Army Corps of Engineers, Douglas County Soil and Water Conservation District	Acquisition, Acquisition: Easement	Internal Administrative, Internal Field Assistance	A few acres of private land is proposed to be gifted to the City of Sutherlin. The land has suitable habitat for rough popcornflower, but it is not certain if property could be maintained weed-free.
rough popcornflower (Plagiobothrys hirtus)	1	1.1.5.1	Education opportunities for landowners/managers/general public	Ongoing Current	FY 2000 - FY 2004		Oregon Department of Agriculture, Oregon Department of Transportation, City of Sutherlin, Oregon, U.S. Fish and Wildlife Service	Other	Species Expert	The FWS has provided technical assistance to the TNC, the City of Sutherlin, the Oregon Department of Transportation and the Douglas Soil and Water Conservation District to help them manage rough popcornflower. The Service participated in one outreach effort in 2011.

Species	Action Priority #	Action #	Action Description	Action Status	Est. Initiation Date	Est. Completion Date	Responsible Parties	Work Type	Labor Type	Action Comments
rough popcornflower (Plagiobothrys hirtus)	1	1.1.5.2	Use of existing authorities and applicable regulations	Ongoing Current	FY 2000 - FY 2004		Oregon Department of Agriculture, Oregon Department of Transportation, Oregon Division of State Lands, City of Sutherlin, Oregon, U.S. Bureau of Land Management, U.S. Federal Highway Administration, U.S. Fish and Wildlife Service, U.S. Environmental Protection Agency, U.S. Army Corps of Engineers	Other: Regulations	Internal Technical Assistance	The Roseburg FWS office has provided comments on several US Army Corps of Engineers Clean Water Act permit applications regarding possible impacts to Plhi. In FY09 the FWS provided comments regarding a proposed development near a Plagiobothrys hirtus occurrence. We are currently providing technical assistance to the USACE regarding an advance mitigation project to put a very large population into permanent protection.
rough popcornflower (Plagiobothrys hirtus)	2	1.1.5.3.1	Evaluate techniques to reduce competition	Ongoing Current	FY 2000 - FY 2004		Oregon Department of Agriculture, Oregon Department of Transportation, U.S. Bureau of Land Management, U.S. Fish and Wildlife Service, The Nature Conservancy	Research: Habitat Requirements	Contract	Roseburg BLM, the City of Sutherlin, and TNC are evaluating mowing, tree and shrub removal to reduce competition. TNC continues to aggressively pull, mow, and clips seed heads to control meadow knapweed, reed canary grass and teasel. City of Sutherlin used a black plastic to kill reed canarygrass at at popcornflower population. Control of meadow knapweed and pennyroyal remain troublesome.

Species	Action Priority #	Action #	Action Description	Action Status	Est. Initiation Date	Est. Completion Date	Responsible Parties	Work Type	Labor Type	Action Comments
rough popcornflower (Plagiobothrys hirtus)	2	1.1.5.3.2	Evaluate techniques to reduce impacts of woody succession	Ongoing Current	FY 2000 - FY 2004		Oregon Department of Agriculture, Oregon Department of Transportation, U.S. Bureau of Land Management, U.S. Fish and Wildlife Service, The Nature Conservancy	Research: Management Techniques	Graduate Student	TNC and DSWCD are evaluating techniques to remove shrubs and trees from Plhi habitat. This action will continue until species is delisted.
rough popcornflower (Plagiobothrys hirtus)	2	1.1.5.3.3	Implement control measures	Ongoing Current	FY 2005		Oregon Department of Agriculture, U.S. Bureau of Land Management, U.S. Fish and Wildlife Service, The Nature Conservancy	Management: General	Internal Field Assistance	TNC and DSWCD continue to manage the popcornflower reserves adaptively, based on results of non-native and native plant control techniques. For the City of Sutherlin, the FWS, ODA, the City, and the Native Plant Society of Oregon entered and began implementing a Conservatoin Agreement with a Species Management Plan.

Species	Action Priority #	Action #	Action Description	Action Status	Est. Initiation Date	Est. Completion Date	Responsible Parties	Work Type	Labor Type	Action Comments
rough popcornflower (Plagiobothrys hirtus)	2	1.1.5.4.1	Collect seeds from extant sites	Ongoing Not Current	FY 2005		Oregon Department of Agriculture, Berry Botanic Garden, Oregon Department of Transportation, City of Sutherlin, Oregon, U.S. Bureau of Land Management, U.S. Fish and Wildlife Service, The Nature Conservancy, Douglas County Soil and Water Conservation District	Management: Propagation	Contract	Seed was collected in 2010 for a large scale propagation efforts to be completed in 2011 and 2012. See Actions 1.2.2 and 2.2  Partial collection and propagation work initiated in 2005 was funded through a Partners for Fish and Wildlife Program project in 2006 for an outplanting/augmentation effort. No seed was collected in FY 2008 or 2009 due to lapses in funding. Seed collection commenced in 2010 as part of a large scale popcornflower introduction project.
rough popcornflower (Plagiobothrys hirtus)	2	1.1.5.4.2	Produce and establish transplants	Ongoing Current	FY 2006		Oregon Department of Agriculture, U.S. Fish and Wildlife Service, Douglas County Soil and Water Conservation District	Research: Propagation	Contract	This action will be conducted from 2005 to 2013. See Action 1.1.5.4.2. Funding for this action began in FY 2010.

Species	Action Priority #	Action #	Action Description	Action Status	Est. Initiation Date	Est. Completion Date	Responsible Parties	Work Type	Labor Type	Action Comments
rough popcornflower (Plagiobothrys hirtus)	2	1.1.5.5	Monitor existing populations	Ongoing Current	FY 2000 - FY 2004		Oregon Department of Agriculture, U.S. Bureau of Land Management, U.S. Fish and Wildlife Service, The Nature Conservancy	Management	Internal Field Assistance	TNC, City of Sutherlin, ODOT, DSWCD, and Roseburg BLM monitor Plhi populations they manage annually or biennially. A full plant census was conducted at the Sutherlin Festival Grounds plant site in FY 2007, 2008, and 2010. A full plant census at the Southside Swale population was conducted in FY 2009 and 2010. TNC will monitor their plant site in 2011. ODOT monitored their two plant sites in 2009.
rough popcornflower (Plagiobothrys hirtus)	2	1.2.1.1	Identify ecologically appropriate habitat	Ongoing Not Current	FY 2000 - FY 2004		Oregon Department of Agriculture, U.S. Fish and Wildlife Service, The Nature Conservancy	Other	Internal Technical Assistance	FWS has identified suitable habitat for popcornflower through surveys on public lands. Surveys on private lands are limited. We have identified some new potential rough popcornflower introduction sites in Yoncalla, Douglas County, Oregon for FY 11.
rough popcornflower (Plagiobothrys hirtus)	2	1.2.1.2	Protect population introduction sites	Ongoing Current	FY 2000 - FY 2004		Oregon Department of Transportation, U.S. Bureau of Land Management, The Nature Conservancy, Douglas County Soil and Water Conservation District	Management: Habitat Maintenance and Manipulation	Internal Technical Assistance	Continuing on Roseburg BLM, Douglas County Soil and Water Conservation District, and ODOT administered land.
rough popcornflower (Plagiobothrys hirtus)	2	1.2.2	Collect seeds	Ongoing Current	FY 2005		Oregon Department of Agriculture	Management: Propagation	Contract, Graduate Student, Internal Field Assistance	Seed was collected for large-scale propagation effort in 2010 and may be collected in 2012 if necessary.

Species	Action Priority #	Action #	Action Description	Action Status	Est. Initiation Date	Est. Completion Date	Responsible Parties	Work Type	Labor Type	Action Comments
rough popcornflower (Plagiobothrys hirtus)	2	1.2.3	Produce and establish transplants	Ongoing Current	FY 2006		Oregon Department of Agriculture	Management: Propagation, Research: Propagation	Contract, Graduate Student	This action was accomplished from 1998 to 2000, in 2002, 2006, and will be accomplished from 2011 to 2012 as new introduction projects are proposed. See Action 1.1.5.4.2. Funding for this action was renewed in FY 2010.
rough popcornflower (Plagiobothrys hirtus)	2	1.2.4	Manage populations to promote viability	Ongoing Current	FY 2006		Oregon Department of Transportation, U.S. Bureau of Land Management, U.S. Federal Highway Administration, U.S. Fish and Wildlife Service, The Nature Conservancy	Management: Habitat Maintenance and Manipulation	Internal Field Assistance	Continuing on Roseburg BLM, DSWCD, ODOT, and TNC administered land. In FY 2009, the Service funded restoration of the Soggy Bottoms introduced rough popcornflower introduction site at the Roseburg BLM's North Bank Habitat Management Area.
rough popcornflower (Plagiobothrys hirtus)	2	1.2.5	Monitor new populations to determine viability	Ongoing Current	FY 2000 - FY 2004		Oregon Department of Agriculture, Oregon Department of Transportation, City of Sutherlin, Oregon, U.S. Bureau of Land Management, U.S. Fish and Wildlife Service, The Nature Conservancy	Acquisition: Exchange, Research: Population Assessment, Research: Population Surveys	Internal Field Assistance	As of FY 2009, there were five introduced and one augmented populations that occur on Roseburg BLM, DSWCD, ODOT and private land. Of these three populations appears to be extremely vigorous, one is stable or slightly increasing and the other two are dwindling or nearly extirpated.

Species	Action Priority #	Action #	Action Description	Action Status	Est. Initiation Date	Est. Completion Date	Responsible Parties	Work Type	Labor Type	Action Comments
rough popcornflower (Plagiobothrys hirtus)	2	2.1	Rank populations	Ongoing Current	FY 2000 - FY 2004		Oregon Department of Agriculture, U.S. Fish and Wildlife Service	Management: Planning	Contract, Internal Technical Assistance	ODA has partially completed population ranking. This could be completed in FY 2010. The highest ranked populations have had seed in storage. No new efforts have been completed since 5-year review.
rough popcornflower (Plagiobothrys hirtus)	2	2.2	Collect and bank seeds	Ongoing Not Current	Prior to FY 1995		Berry Botanic Garden, U.S. Fish and Wildlife Service	Research: Propagation	Internal Field Assistance	<p>Since 1987 approximately 17,600 seeds have been collected from 7 different populations and accessed into Berry Botanic Garden.</p> <p>The plant needs to be sponsored so that the BBG can continue to maintain their collection. Oregon State University maintains a modest amount of seed at their nursery that will be used for future introduction projects. No seeds were collected in FY 2008 or 2009. The Service has funded ODA to establish five new popcornflower populations which involves seed collection.</p>
rough popcornflower (Plagiobothrys hirtus)	3	3.1	Evaluate population genetic diversity	Ongoing Not Current	FY 2005		Oregon Department of Agriculture, U.S. Fish and Wildlife Service, The Nature Conservancy	Research: Demographic Studies, Research: Genetics	Contract, Graduate Student	ODA has performed some preliminary studies, no studies were funded from FY 04 to 10. There is obvious morphologic differences between Plagiobothrys hirtus populations at different locations. However, this is not a high priority recovery task currently.



Species	Action Priority #	Action #	Action Description	Action Status	Est. Initiation Date	Est. Completion Date	Responsible Parties	Work Type	Labor Type	Action Comments
rough popcornflower (Plagiobothrys hirtus)	2	3.2	Evaluate pollinator availability	Not Started			Berry Botanic Garden, U.S. Bureau of Land Management, U.S. Fish and Wildlife Service, The Nature Conservancy	Research: Demographic Studies, Research: Habitat Requirements, Research: Other Information	Graduate Student	Casual observations were reported prior to development of recovery plan. ODA has performed some preliminary studies, no studies were funded between FY 04 to FY 10. This action is not a high priority at this time.
rough popcornflower (Plagiobothrys hirtus)	3	4	Provide outreach services for owners of reserve and the general public	Ongoing Current	FY 2006		Oregon Department of Agriculture, Oregon Division of State Lands, U.S. Fish and Wildlife Service, U.S. Environmental Protection Agency, The Nature Conservancy, Douglas County Soil and Water Conservation District	Other: Information and Education	Internal Technical Assistance, Species Expert	Three reserve owners, The Nature Conservancy, the Douglas Soil and Conservation District and the City of Sutherlin have been receiving technical assistance from the FWS to help with monitoring and management of rough popcornflower. Between FY 2008 and 2009 the Service provided technical assistance to two private landowners. In 2010 the Service provided funding for a natural wood fence and interpretive signs placed around a Plagiobothrys hirtus population at a park in Sutherlin. The fence was constructed in summer 2010 and has improved the aesthetic value of the population for public display.